

Missouri Department of Natural Resources

## Total Maximum Daily Load Information Sheet

### Hinkson Creek

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#### Waterbody Segment at a Glance:

**County:** Boone  
**Nearby Cities:** Columbia  
**Length of impairment:** 11 miles  
**Pollutant:** Unspecified  
**Source:** Urban nonpoint source runoff



State map showing location of watershed

**TMDL Priority Ranking:** Medium

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#### Description of the Problem

**Beneficial uses of Hinkson Creek (Class C portion with intermittent flow, permanent pools)**

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life and Human Health associated with Fish Consumption

**Beneficial uses of Hinkson Creek (Class P portion with permanent flow)**

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life and Human Health associated with Fish Consumption
- Boating and Canoeing

#### Use that is impaired

- Protection of Warm Water Aquatic Life

#### Standards that apply

All Missouri streams are protected by general criteria contained in Missouri's Water Quality Standards 10 CSR 20-7.030 (3). The portion of the standards that apply to Hinkson Creek state:

- (A) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
- (C) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
- (G) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community.

Water quality studies have documented the problems related to the urbanization of watersheds.

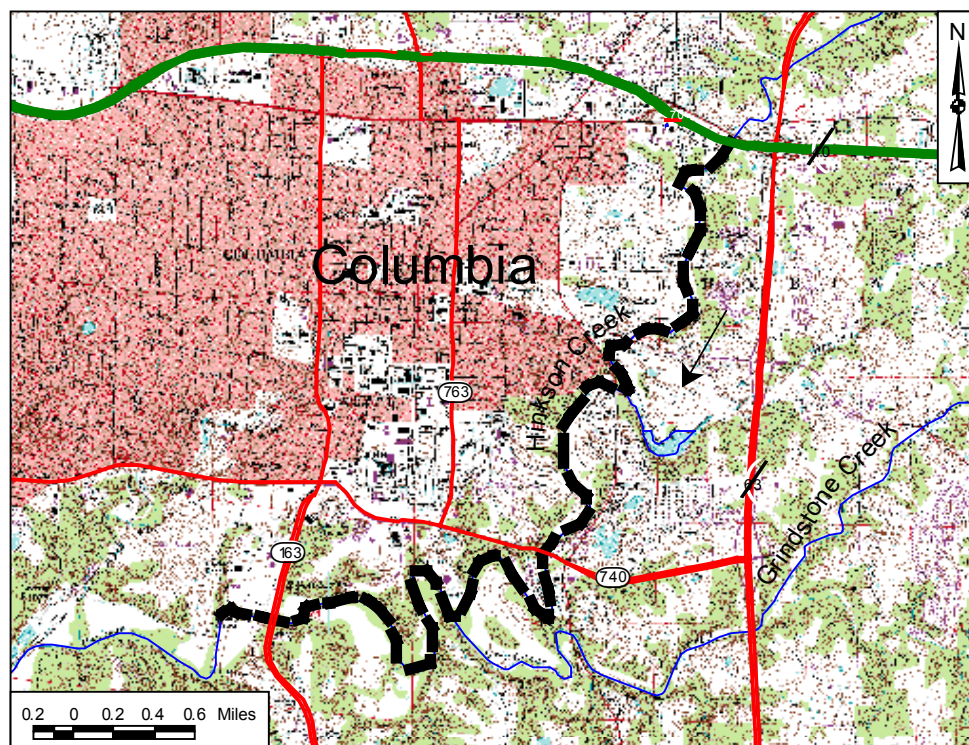
Major problems include:

1. Larger and more frequent floods as well as lower base flows due to the increase in impervious surfaces (rooftops, paved roads and parking lots) in the watershed.
2. Increased soil erosion and the subsequent deposition in streams.

3. Water contamination from urban storm water flows.
4. Degradation of habitat for aquatic organisms due to the concerns listed above.
5. Degradation of aquatic habitat due to the physical alteration of stream channels and adjacent streamside (riparian) corridors. Such practices include:
  - enclosing the stream in a large pipe
  - straightening (channelizing) the stream
  - paving the stream bottom and/or banks with concrete or rip rap
  - removing trees and other permanent vegetation near streams

Hinkson Creek runs through the City of Columbia and was placed on the 303(d) list due to a history of repeated fish kills attributable to a wide range of causes. Also, the department has received citizen reports regarding all five of the problems mentioned above. The Department of Natural Resources plans to study the aquatic invertebrates of both urban and rural portions of Hinkson Creek during 2002-2004. If these studies show impairment of the stream biology in the urban segment of the stream, the department will use the data to help the city develop an adequate stormwater control program.

#### Hinkson Creek in Boone County, Missouri



--- Impaired segment      → Direction of flow

#### For more information call or write:

Missouri Department of Natural Resources, Water Pollution Control Program  
 P.O. Box 176, Jefferson City, MO 65102-0176  
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